

AIR FORCE HISTORY REPORT

ON

OPERATION TAILWIND



AIR FORCE HISTORY SUPPORT OFFICE

16 July 1998

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I. INTRODUCTION

A. Events Which Prompted DoD Review

At 10:00 p.m. EDT on Sunday, 7 June 1998, Cable News Network (CNN) telecast the first edition of a new show, "NewsStand: CNN & Time," in coordination with *Time* magazine. The lead story on the 7 June telecast, called "Valley of Death," alleged that a U.S. Special Forces unit was inserted into Laos in September 1970 to kill U.S. military defectors. The story claimed that during the operation, code named TAILWIND, the Special Forces unit assaulted an enemy base camp "village" and killed enemy troops, women, children, and U.S. defectors. The telecast alleged that Air Force A-1 Skyraider aircraft dropped Sarin nerve gas CBU-15 munitions on the enemy base camp prior to the attack by the Special Forces unit. The CNN telecast also claimed that during their extraction, the Special Forces personnel called in Air Force A-1's, which again dropped Sarin nerve gas weapons on enemy soldiers.

The next day, *Time* magazine, dated 15 June 1998, included a similar story on Operation TAILWIND, written by CNN staff.

B. Review SECDEF Directed

On Monday, 8 June, the Secretary of Defense, William S. Cohen, announced a formal investigation of these charges. A 9 June memorandum to the Military Departments and the Joint Chiefs of Staff (JCS) directed a 30-day investigation of the two charges that the TAILWIND operation was directed against U.S. military defectors and that Sarin nerve gas was used. (See Appendix H)

C. Conclusions

This Air Force report will only address the allegation that Air Force A-1s dropped Sarin nerve gas during Operation TAILWIND, 11-14 September 1970. The other allegation, that Operation TAILWIND was directed against U.S. military defectors, will be addressed by the U.S. Army and the JCS.

Based on all of the information historians gathered in their investigation, Sarin nerve gas was not used by Air Force aircraft during Operation TAILWIND. The historians could find no evidence that the CBU-15

nerve agent munition was an operational weapon or deployed to Southeast Asia at the time.

On 13 and 14 September 1970, A-1s from the 56th Special Operations Wing dropped CBU-30 CS tear gas munitions to assist in the extraction of the Special Forces unit. The 13 September attempt was aborted, and the 14 September attempt succeeded.

Authorization to use CS tear gas in Search and Rescue operations in Laos derives from a 20 January 1968 Secretary of Defense Memorandum. (See Appendix C).

II. CONDUCT OF REVIEW

A. Overview

On 3 June 1997, the Air Force Historian (HQ USAF/HO), Dr. Richard P. Hallion, was informed of the upcoming 7 June CNN story about nerve gas in Laos, 1970. On 4 June, Air Force personnel began a thorough search to identify materials on TAILWIND and the use of gas of any kind in Southeast Asia. Dr. Hallion spoke to several knowledgeable sources: (1) Colonel Rod Paschall (retired Green Beret); (2) General Michael Dugan (retired Air Force Chief of Staff, A1 pilot); (3) Colonel Eugene Deatrick (retired A1 pilot); (4) Terry Bolstad (retired A1 Search and Rescue (SAR) pilot); (5) Lt Col William Flanagan (retired F4 weapon systems operator); and Herbert Mason (historian for the Air Force Special Operations Command).

After the telecast, the Secretary of Defense ordered an investigation of the allegations that TAILWIND was directed against US military defectors, and that Sarin nerve gas was used in the operation. The Air Force Historian then ordered a program-wide search for relevant materials concentrating on the Air Force History Support Office (AFHSO), the Air Force Historical Research Agency (AFHRA), and the Air Force Materiel Command (AFMC).

B. Additional Interviews:

1. Wayne Thompson (AFHSO) conducted interviews with Tom Stump, Don Feld, and Art Bishop, all of whom had been in the 56th Special Operations Wing (SOW) as A1 pilots. Feld and Bishop flew the CBU-30 tear gas sorties on 14 September 1970. Thompson also interviewed Covey Forward Air Controllers of the 20th Tactical Air Support Squadron: Gary Green, George Boehme, and Warner McGraw.

2. Diane Putney (AFHSO) interviewed Donald Knight and Wilfred Turcotte, officers who had commanded the 56 SOW's 456th Munitions Maintenance Squadron (MMS) in September 1970.

3. Yvonne Kinkaid (AFHSO) interviewed Lloyd O'Daniels, Covey FAC "Rider"; Lt Col Paul Spencer, Assistant Maintenance Supervisor, 456 MMS; Lt Col Wilfred Turcotte, commander, 456 MMS; Col Donald Knight, commander, 456 MMS; SMSgt James McCoy, Munitions Services Superintendent, 456 MMS; and CMSgt Donald Guy, Munitions Services Superintendent, 456 MMS.

4. Sheldon Goldberg (AFHSO) also interviewed Lt Col Spencer, Assistant Maintenance Supervisor, 456 MMS.

C. Major Publications Examined:

FM 310/AFM 3554, *Employment of Chemical and Biological Agents*, 31 March 1966. Conboy, Kenneth and James Morrison, *Shadow War: The CIA's Secret War in Laos*, Boulder, CO: Paladin Press, 1995.

Cosmas, Graham & Lt Col T. P. Murray, *U.S. Marines in Vietnam: Vietnamization and Redeployment: 1970-1971*, Washington, DC, USMC, 1986.

Hammond, William M., *Public Affairs: The Military and the Media, 1962-1968*, Washington, DC, Center of Military History, 1988.

Plaster, John L., *SOG: The Secret Wars of America's Commandos in Vietnam*, New York, Simon & Schuster, 1997.

Van Buskirk, Robert and Fred Baver, *Tailwind*, Waco, TX, Word Books, 1983.

The New York Times, 1969-1971.

Project CORONA HARVEST Report, HQ PACAF (DOV), *In-Country and Out-Country Strike Operations in Southeast Asia, 1 Jan 65 - 31 Dec 69*, vol. 2, *Hardware: Munitions*, 2 November 1970, AFHSO.

Burch, Maj R. M., Project Contemporary Historical Evaluation of Combat Operations (CHECO) SEA Report, "The ABCCC in SEA," 7 AF/DOAC, 15 January 1969.

U.S. Military Assistance Command, Vietnam, "Command History 1970, Annex B, Studies and Observations Group," 8 April 1971.

USAF Management Summary, Reference Data, Non-Nuclear Ordnance Characteristics, HQ USAF, 1967-1970.

Guide to Air Force Armament Laboratory NonNuclear Munitions and Equipment, Part 1 & 2, AFATL, 1 September 1968.

Hay, Lt Gen J. H., Jr., *Vietnam Studies: Tactical and Material Innovations*, Washington, DC, Dept of Army, 1974.

Schlight, Lt Col John, Project CHECO SEA Report, "Rescue at Ban Phanop, 57 December 1969," 7 AF/DOAC, 15 February 1970.

JCS Southeast Asia Data Base (SEADAB), 1970-1972, in Center for Electronic Records, NARA.

JCS Combat Air Activities (CACTA) File, 11-14 September 1970, in Center for Electronic Records, NARA.

Seventh Air Force CHECO Microfilm, 1966-1970.

D. USAF Field Histories Consulted:

Pacific Air Force, 1970
Seventh Air Force, 1968-1971
Ogden Air Materiel Area (OOAMA), 1964-1968
OOAMA Southeast Asia Support, 1964-1968
Air Force Armament Laboratory, 1964-1971
Air Proving Ground Center, 1964-1971
USAF Tactical Air Warfare Center, 1964-1971
8th Tactical Fighter Wing, July-December 1970
12th Tactical Fighter Wing, July-December 1970
35th Tactical Fighter Wing, July-September 1970
56th Special Operations Wing, 1969-1971
366th Tactical Fighter Wing, July-December 1960
388th Tactical Fighter Wing, July-September 1970
400th Munitions Maintenance Squadron (Theater), 1964-1971
432nd Tactical Reconnaissance Wing, July-September 1970
504th Tactical Air Support Group, July-September 1970
41st Aerospace Rescue and Recovery Wing, July-September 1970
3rd Aerospace Rescue and Recovery Group, July-September 1970

E. Participants in Air Force History Research:

Richard Hallion, The Air Force Historian
Wayne Thompson, Air Force History Support Office
Diane Putney, Air Force History Support Office
Sheldon Goldberg, Air Force History Support Office
Yvonne Kinkaid, Air Force History Support Office
Capt Roy Stanley, Air Force History Support Office
James Howard, Air Force Historical Research Agency
TSgt David Byrd, Air Force Historical Research Agency
Herbert Carlin, Air Force Materiel Command
William Elliot, Air Force Materiel Command
Vickie Jones, Air Force Materiel Command
Dennis Casey, Air Intelligence Agency
Lt Col Dale Wise, Secretary of the Air Force Declassification Team
SMSgt Jean Hardin, Secretary of the Air Force Declassification Team
MSgt Ray Bailey, Secretary of the Air Force Declassification Team
Richard Boylan, National Archives II Textual Records
Charles Shaughnessy, National Archives II Textual Records
Margret Adams, National Archives II Center For Electronic Records
Lee Gladwin, National Archives II Center for Electronic Records
Fred Graboske, U.S. Marine Corps History and Museums
William Siebert, National Personnel Records Center

III. DISCUSSION

A. Unclassified Account of TAILWIND

On 11 September 1970, Marine CH-53 helicopters and AH-1G Cobra gunships carried into Laos, near Chavane, a team of 16 Americans and a Special Commando Unit (SCU), consisting of Montagnard troops. The Americans were in Company B, Command and Control Central, Military Advisory Command Studies and Observation Group (MACSOG). Their mission, Operation TAILWIND, would last until 14 September 1970, and their objectives were reconnaissance, intelligence collection, and a diversion for a larger operation to the north.

From landing zone preparation on 11 September to extraction on 14 September, the team was provided continuous tactical air support by Air Force, Army, and Marine assets. The enemy almost continuously attacked the team during the four days they were in Laos. Air Force units under the operational control of the Seventh Air Force flew 76 sorties for TAILWIND and provided Forward Air Control (FAC) and Airborne Command and Control Center (ABCCC) aircraft and crews. Pilots used the code words "Prairie Fire" to refer to the infiltration and exfiltration of the MACSOG team. Similarly, MACSOG used the "Prairie Fire" code words to identify cross-border operations into its Laotian area of operations.

The A-1 Skyraider aircraft which flew TAILWIND missions belonged to the 56th Special Operations Wing (SOW), stationed at Nakhon Phanom (NKP) Air Base, Thailand. The Thirteenth Air Force provided the wing with command, administration, facilities, and personnel, and the Seventh Air Force exercised operational control over the wing's aircraft. Three units flew the A-1s assigned to the 56 SOW:

- 1st Special Operations Squadron at NKP
- 602nd Special Operations Squadron at NKP
- Operating Location AA (OL-AA) at Da Nang Air Base, South Vietnam

In September 1970, the wing's 21st Special Operations Squadron (SOS) flew eleven CH-3E helicopters and one, new CH-53 helicopter which arrived at NKP on 8 August. The squadron referred to the large CH-53 as "BUFF," for "big, ugly, fat fellow," and this designation should not be confused with a similar BUFF nickname given to B-52 bombers. The helicopters of the 21 SOS did not participate in TAILWIND because they flew other combat missions in a "big operation," according to the squadron history, to cut the Ho Chi Minh trail in the Bolovens area of Laos.

The A-1 pilots assigned to the 56 SOW flew four types of combat missions: escort, strike, armed reconnaissance, and search and rescue (SAR). During SAR missions to rescue downed pilots, the wing operated with the Aerospace Rescue and Recovery Service, which flew the HH-3 "Jolly Green Giant" helicopters. The aircraft carried weapons appropriate for the type of mission flown. For a "strike" operation, for example, the munitions maintenance crews would load high explosive and fragmentation bombs and napalm. In "SAR support," at least one A-1 aircraft on the mission would carry M-47 smoke bombs and weapons with "CS" "riot control" tear gas, for use if warranted. An Air Force history, written by Earl H. Tilford, Jr., and first published in 1980, explained that tear gas was employed on SAR missions:

As the war continued, the North Vietnamese, Viet Cong, and Pathet Lao used increasingly sophisticated weapons and tactics to frustrate rescue efforts. Rescue forces reacted to these challenges by developing new weapons and changing tactics. Tear gas bombs and riot control chemicals were some of the most controversial weapons used to support rescue operations. These weapons included Cluster Bomb Unit (CBU)-19A/B and CBU-30A antipersonnel area denial bombs, which were essentially tear gas bombs.

The 56 SOW history for April-June 1969 identified the situations when the use of tear gas would be appropriate during SAR operations. The downed pilot himself would be deliberately gassed in some cases:

CBU-19 could be used on enemy gun or troop concentrations when the enemy was not equipped with masks or other protective equipment. In these areas it was more efficient to disable the enemy temporarily than to employ normal weapons. It was most effective in areas of widespread small arms which were normally difficult to locate and silence.

CBU-19 could be used directly on the survivor if the survivor was surrounded, had been captured, or was injured and unable to help himself and was in [im]minent danger from advancing enemy forces.

The report, "In-Country and Out-Country Strike Operations in Southeast Asia, 1 Jan 65-31 Dec 69," provided the five primary situations when CBU-19 and CBU-30 were employed in South Vietnam:

- To deny the enemy his use of base camps, bunkers, tunnels, and caves
- In prestrike operations in support of defoliation missions
- In SAR operations to prevent the capture of downed aircrews
- In offensive combat operations, such as assaults and suppression of small arms fire around helicopter landing zones
- In defensive combat operations such as perimeter defense

The 56 SOW history for July-September 1970 referred to "gas birds" and defined them as aircraft carrying CBU-19/CBU-30. Thus, the A-1s of the 56 SOW sometimes carried and delivered CS tear gas munitions.

The word "incapacitating" was used to describe the CS weapons. The 56 SOW history in July described a SAR mission and mentioned "incapacitating ordnance." Another report, "USAF Search & Rescue in Southeast Asia, 1 Jul 69-31 Dec 70," provided a definition for "CS" in its glossary: "personnel incapacitating agent."

The CBU-19 gas bomb had been originally designed for helicopters, but within the Air Force, mostly A-1s expended them, and they were little used after 1969. During 1970-1972 the Air Force principally used the CBU-30 tear gas cluster bomb. Both propeller aircraft, A-1s, and jet aircraft, especially F-4s and F-100s, employed the CBU-30, which contained 66 pounds of CS tear gas, while the CBU-19 contained only 14 pounds. The "In-Country and Out-Country Strike Operations" report described the CBU gas munitions:

The CBU-19 chemical cluster was a 130-lb. modified U.S. Army dispenser intended for use on helicopters and consisted of two subclusters fitted to a strongback. Each cluster contained 528 agent-filled canisters; each canister contained an incapacitating chemical, called CS, and a pyrotechnic fuze. Upon ejection from the aircraft, the fuze ignited the CS, disseminating the CS for four to six seconds. This required delivery below 600 feet AGL [above ground level] to insure that the chemical reached the ground. Also, as the cluster had originally been designed for use on helicopters, delivery was restricted to use on the A-1 and A-37 because the cluster could not withstand the airloads encountered on faster aircraft. The CBU-30 consisted of the SUU-13 downward ejection dispenser and 1,280 BLU-39/B23 submunitions, each filled with CS. Upon ejection, a pyrotechnic fuze in each submunition ignited, disseminating the agent into the air. Delivery was restricted to below 600 feet AGL to insure ground coverage. Upon contact with the ground, the submunitions skittered about, disseminating the CS even further. The CBU-30 was compatible with both low and high speed aircraft.

In the Air Force, CS had replaced the older, less potent CN tear gas. A MACV directive, 28 March 1970, defined CN as a "standard tear agent employed by law enforcement agencies" and CS as "an improved agent developed for military use." The BLU-52 consisted of CS-1, CS in a persistent powdered form, in a 750-lb. fire bomb casing. Because CS-1 tended to cake when wet, an oil-like substance was added to improve its flow qualities, and the improved fill was called CS-2 and the munition was designated BLU-52A. BLU-52s functioned as anti-personnel area denial and interdiction munitions. They only recently were sent to the 56 SOW in September 1970 and caused problems. The Munitions

Maintenance Squadron reported: "BLU-52's have arrived and are causing a difficult storage situation because of lack of proper decontaminants. These bombs will be restricted from use."

The Tilford history provided an account of the use of tear gas which highlights its potency and shows that those who breathed the agent could experience very strong physical reactions. It stated that on 15 February 1969, A-1 Skyraiders flew a SAR mission near the Laos-South Vietnam border and dropped CBU-19s. It continued:

Braving the constant hail of antiaircraft fire, the Skyraiders made the required mile-long run at 300 feet and 220 knots to hit all their targets—enemy antiaircraft gun positions. While the gunners choked, coughed, cried, and retched uncontrollably, a Jolly Green [helicopter] with its crew wearing gas masks swooped in and saved the pilot.

An Air Force historical CHECO report also included an account of the effects of tear gas. It included a statement from a downed Air Force pilot describing the use of riot control agents (CBU-19, CBU-30, and BLU-52) during his rescue near Ban Phanop in Laos, lasting three-days in December 1969:

They laid it all along the top of the ridge . . . [some of] it hit me . . . I might as well tell you what it feels like when that stuff goes off. I ran into a tree and was wrapped around the tree urinating, defecating, and retching all at the same instant. . . It also made me want to sneeze. It was a beauty to have 500 pounders and everything go off because it would give me a chance to sneeze. . . It goes into effect instantaneously. Physically and mentally you can't control yourself. . . After that every time I'd come up on the air and ask for Vodka (A-1s carrying CBU-19), as soon as I'd tell them where, how far and the heading, I'd tell them 'Don't get it close to me.'

The "USAF Search & Rescue Report, 1 Jul 69-31 Dec 70," which covered the time of the TAILWIND Operation, contained illustrations of the A-1 Skyraider carrying its various weapons loads, and for the SAR support configuration it indicated that the A-1 carried two CBU-30 weapons, and they were hung on the right and left "stubs" of the aircraft, which placed them under the right and left wing, immediately next to the fuselage. (See Appendix A) A set of notes dated January 1970, which a 56 SOW A-1 pilot consulted before flying missions, provided a warning: "To dispense CBU-30 consecutively, do not set train position. Instead, set the stub selector switches to SALVO one at a time."

The employment of tear gas "riot control" weapons in Southeast Asia by the Air Force and Army generated controversy, and appropriate officials in the chain of command authorized each use of the CS air weapon. The Seventh Air

Force required regular reports on the exact number of munitions expended during specified time periods. Secretary of Defense Robert S. McNamara issued a key authorization for use of CS in Laos on 20 January 1968 when he sent a memorandum to the Chairman of the Joint Chiefs of Staff, stating, "With reference to JCSM 480-67 of 26 August 1967, I approve at this time only so much of the JCSM recommendation as pertains to the use of riot control agent CS in combat aircrew recovery operations in Laos." The MACSOG history which discussed TAILWIND noted, "The authority to use CS/CN gas within the PF [Prairie Fire] AO [area of operations] was held by the US Ambassador to Laos. Its use was considered on a case by case basis and was last utilized to assist in an extraction of an exploitation force on 14 September." This date, 14 September 1970, matches last day of the TAILWIND operation when the team was extracted and the operation ended. A MACV directive 25 December 1971 stated that the use of riot control agents commonly covered "extraction by helicopter of troops, medical evacuees, and downed aircrews."

The CBU-14 and CBU-25 weapons in the inventory of the 56 SOW deserve special consideration because the wing was discontinuing the use of CBU-14s and receiving CBU-25s in September 1970. Both cluster bomb units used the suspension unit, universal (SUU)-14 dispenser, filled with submunitions. Neither was a chemical munition. The CBU-14 was designed for use against light materiel targets, such as trucks. The CBU-25 was an anti-personnel weapon. The CBU-14s had a high percentage of duds. The 56 SOW history in September 1970 reported:

Other problems included the unforeseen change in ordnance types. When the shipment of CBU-25 arrived, the CBU Storage Area was filled to capacity with CBU-14 leaving no room for storage. The change was due to the characteristics of CBU-14 which sometimes hangs undetonated in trees, providing the enemy with a source of effective antipersonnel munitions for use against friendly troops in the form of booby traps. . . . Due to the late arrival of CBU-25 ordnance (September) follow up action was not available for this report. However, action was expected during October to request removal of CBU-14 from NKP.

In September the A-1s of the 56 SOW expended both CBU-14 and CBU-25 Munitions.

Also during September 1970, the three units of the 56 SOW which flew the A-1 Skyraiders participated in TAILWIND, and pilots from the wing dropped the CS weapons used during the operation. The call sign of the A-1 pilots from the

1st Special Operations Squadron of the 56 SOW was "Hobo." Their squadron history for September stated:

The [T]ailwind exfil on 13 and 14 September was heavily opposed, but with the help of numerous accurate low-level attacks by A-1s, from both NKP and Danang, the ground team was successfully extracted on the second day. Many Hobo pilots were involved in this effort.

The squadron history for July 1970 referred to CBU-19/CBU-30 "gas birds," but the September history does not specifically state that the unit's aircraft dropped gas during TAILWIND.

The history of the 602nd Special Operations Squadron did not mention TAILWIND, but interviews confirmed that squadron pilots flew in support of the operation. Among the weapons the squadron used in September were CBU-30s, CBU-14s, and CBU-25s. No CBU-19s were used. The tear gas expenditures for the month consisted of eight CBU-30 tear gas munitions.

The 56 SOW's Operating Location AA, stationed at Da Nang, provided a description of its TAILWIND involvement in its September history. The A-1 pilots' call sign was "Spad":

On 11 September the Spads assisted in the infil of a unique long range reconnaissance team. Also on that date, units of the Royal Laotian Government were fighting to interdict Rt 23 in the Laotian panhandle. The reconnaissance team, code name "Tailwind," was three times their normal size and was intent on more than reconnaissance. Scheduled to be a diversion for the Laotian unit, Tailwind on 12 September made contact with the enemy. In response to this contact, the Spads launched 10 sorties to support the tactical emergency which had developed. On these sorties Spad pilots made numerous low altitude passes to .50 caliber and intense small arms and automatic weapons. Strikes were also directed against known mortar positions. By the 13th of September the enemy had definite knowledge he was fighting more than a standard reconnaissance team. An aggressive effort was made to overrun the special forces. The Spads again responded to what had now become a Prairie Fire Emergency by providing twelve sorties. Again low passes and precision delivery repelled hostile forces in their attempt to destroy the friendly team. This lasted throughout the day, and efforts were made to prepare for a first light launch.

On the 14th of September eight sorties were launched on this day to assist in the recovery of this team. The team was safely extracted at 1400 hours on the 14th of September. All total, the Spads provided thirty sorties in support of the "Tailwind." The team reported over 400 KBA [killed by air] and suffered only three lost during its heroic activities.

Among the munitions the OL-AA expended during the month were CBU-25s. In September 1970 the operating location expended no tear gas weapons.

Information in the 56 SOW history indicates that the A-1 Skyraiders which dropped tear gas during TAILWIND, expended CBU-30, not CBU-19, tear gas munitions. Two other sources point to CBU-30 as the gas weapon the A-1s dropped. The computerized Southeast Asia Data Base (SEADAB) reveals that A-1s from NKP expended 6 CBU-30s on 13 September and 6 CBU-30s on 14 September, in the area where the TAILWIND team was located. The 12 CBU-30s used over the two-day period include the 8 CBU-30s specifically listed in the 602 SOS September history. Art Bishop, one of the pilots who dropped the tear gas on the last day of the operation, 14 September, stated that he used CBU-30, and he is certain of the type because he consulted a diary in which he had written CBU-30. The second pilot who dropped the gas bombs, Don Feld, clearly remembered it as tear gas, but could not recall the type of CBU.

Other USAF tactical air (TACAIR) units and aircraft operating in the part of Laos where the TAILWIND team operated on 11-14 September 1970 were: F-4s and AC-130s from the 8th Tactical Fighter Wing (TFW), Ubon Air Base, Thailand; F-4s from the 388 TFW, Korat Air Base, Thailand; F-100s, probably from the 35 TFW, Phan Rang Air Base, South Vietnam; F-105s from the 355 TFW, Takhli Air Base, Thailand; AC-119s from the 18 SOS at Da Nang Air Base; and OV-10s from the 504th Tactical Air Support Group at NKP. Most of the unit histories did not mention TAILWIND. One did preserve the letter of congratulations from General Lucius Clay, Jr., Seventh Air Force commander, to the crews of the 8 TFW, for their participation in the operation. Clay singled out for special recognition the pilot and crew of an AC-130 Spectre gunship, call sign Moody 2, from the 16 SOS. SEADAB computerized data did not show any aircraft other than the A-1s from NKP as dropping gas munitions during TAILWIND.

Among the responsibilities of the 455th Munitions Maintenance (MMS) of the 56 SOW were those to supply the wing with all required munitions and associated components for combat missions and to support all loading, downloading, arming, and disarming of all wing aircraft requiring munitions. During an interview, the commander of the 456 MMS at the time of TAILWIND, Lt. Col Wilfred N. Turcotte, USAF, retired, stated that the wing had in its inventory tear gas munitions, but no Sarin. The idea of nerve agent munitions at NKP was a "startling concept" to him. The men in his squadron who loaded the weapons on the aircraft did so with no protective gear and often worked in the hot climate "stripped to the waist," wearing shorts or long pants. As commander, he was often on the flight line as munitions were prepared and

loaded. He certainly would have known if there was poison Sarin gas in the weapons his men handled. There was none. He would have been notified if Sarin gas was going to be used on a mission. He was never so informed.

During an interview, the Assistant Maintenance Supervisor of the 456 MMS at the time of TAILWIND, Lt Col Paul C. Spencer, USAF, retired, explained that he had received formal training in identifying and handling munitions of all types, including nerve gas. He said there was no Sarin at NKP. Had there been he certainly would have been aware of it, and he knew how to recognize it. He stated that had he seen any he would have immediately reported it to the Inspector General. At no time while he was in the 56 SOW did he see special protective clothing, masks, rubber aprons, etc. necessary when storing and moving nerve agent munitions. He was familiar with every storage and work area and went through them all. He checked munitions loads daily. The gas munitions at NKP were there for search and rescue (SAR) missions. These weapons were preloaded on trailers so they could quickly be uploaded to the SAR aircraft.

The officer who assumed command of the 456 MMS on 23 September 1970, nine days after TAILWIND, Col. Donald L. Knight, USAF, retired, stated that the 56 SOW used tear gas on missions, but that he had received no information at all about nerve agent munitions ever being in the 56 SOW inventory of weapons. He never heard anything about Sarin at NKP, and none was in the wing when he commanded the 456 MMS. He described how weapons were preloaded on trailers in the munitions area and driven over to the aircraft where 456 MMS members loaded them onto the aircraft. The only protective equipment he remembered his munitions loaders wearing on the flight line were ear plugs.

After the TAILWIND operation, General Clay, as commander of the Seventh Air Force, attended a briefing on the mission 11-14 September, given by one of the members of the ground element. The briefer described in detail the combat action the group engaged in while in Laos, and the tactical air power his team relied upon. Clay wrote, "Describing the air support as 'magnificent,' the briefer further stated the mission could not have been accomplished without the coordinated, accurate air support his forces received."

Air Force units supported TAILWIND with effective and continuous air power, but at no time during the operation did any Air Force aircraft deliver Sarin nerve gas. The A-1 Skyraiders did expend CBU-30 tear gas, which contributed to the successful extraction of the TAILWIND team.

TAILWIND from the ABCCC EC-130 Perspective Matched to SEADAB Data

Two Airborne Command and Control Center (ABCCC) EC-130 aircraft flew during TAILWIND and reported daily on the mission, starting on its second day, September 12, when a Prairie Fire Emergency was declared. The ABCCC messages, matched to data in the computerized Southeast Asia Data Base, provide additional information about the operation.

The calls signs for the two ABCCC aircraft were Moonbeam and Hillsboro.

On 11 Sep 70 sorties by 8 TFW F-4s from Ubon dropped MK-82 bombs at a landing zone in southern Laos at YC 4370 0470.

For the night of 12/13 Sep Moonbeam reported coverage by FLIP (1115), an AC-119 gunship from the 18 SOS (Danang), and Moody 1 and 2 (1103 & 1119) AC-130 Spectre gunships from the 8 TFW at Ubon at coordinates YC 4362 0498. The supporting aircraft could see mortar rounds, grenades, and rockets falling on Company B. Firefly 44, an A-1 out of NKP (56 SOW), expended a load of CBU-25s in support of Tailwind that night, as did 18 Spad 01, an A-1 from 56 SOW OL-AA at Danang. Both were guided by an Alma FAC.

The Prairie Fire Emergency continued during 13 Sep 70. ABCCC Hillsboro reported Company B moving from landing zone to landing zone, trying to exfiltrate the area. They were not successful, and one Marine CH-53 (Gnat One) was destroyed but the crew was saved. Hillsboro reported 22 A-1 sorties and 8 quick-reaction force (QRF) sorties (F-4s) supporting Tailwind on 13 Sep. These sorties included Wolfpack 11 and 12 F-4s from 8 TFW (Ubon) dropping MK-82 bombs and CBU-24s at YC 4480 0570; Hobo 20 and 44 A-1s from 56 SOW (NKP) dropping CBU-25s; Spad 01 and 03 A-1s from 56 SOW OL-AA (Danang) dropping CBU-25s and BLU-32B fire bombs.

During the 13 Sep exfiltration attempts, CBU-30 tear gas bombs were dropped at YC 4450 0380 by Firefly 24 and Hobo 46, which were 56 SOW A-1s from NKP.

Later in the day, additional support was provided by Firefly 34 and 35 (56 SOW A-1s from NKP) dropping CBU-25s at YC 4350 0450.

During the night of 13/14 Sep Moonbeam ABCCC reported that Company B had 3 critical casualties, and 8 others wounded. Gunships Greg 1 and 2, Will and Check, provided cover. Additional support was provided by Hobo 30 and 31; Firefly 42 and 43; and Spad 03 and 04.

Company B was extracted successfully at 1500L on 14 Sep 70. Another Marine CH-53 was lost in this effort. Hillsboro reported that at least 10 A-1

and 8 QRF (F-4) sorties were flown in support of Tailwind on 14 Sep and guided by Gazor FACs. Wolfpack 11, 21, 41, and 51 F-4s (8 TFW from Ubon) dropped CBU-24s and MK 82 bombs at YC 4220 0570. Some of the A-1 sorties were Hobo 31 and 32 and Spad 01, 02, 03 and 04 (56 SOW OL-AA from Danang) dropping CBU-25s.

In support of the exfiltration on 14 Sep, CBU-30 tear gas was dropped by Firefly 44 and Hobo 20 (56 SOW A-1s from NKP) at YC 4450 0380.

SOURCES:

1. 7AF ABCCC Msg & Narrative Rpts, 12-14 Sep 70.
2. JCS SEADAB, 11-14 Sep 70.

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Killpack, 8TFW/CC, 8 October 1970, in History (S), "8th Tactical Fighter Wing," vol 2, microfilm, AFHSO.

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B. Related Topics

1. Considerations: Nerve Agent Weapons

The following describes an exercise with MC-1, a Sarin nerve agent munition, which shows the precautions necessary when handling lethal nerve gas. In January 1969, the 313th Air Division informed the 400th Munitions Maintenance Squadron (MMS) and other interested USAF units on Okinawa of a USAF operational test and evaluation program for the 750 lb. MC-1 Sarin nerve gas bomb to be conducted at Dugway Proving Grounds, Utah, in March 1969.

Leakproof containers were shipped in from Ogden Air Materiel Area (OOAMA), and Disaster Control Forces at Kadena were extensively trained. Army and Air Force Technical Escort teams inspected the 25 weapons carefully and supervised the loading into the containers which were then mounted on 9 pallets.

On 27 March 1969, the convoy of bombs left the Chibana Army Ammunition Depot in tractor trailers for an hour and a half drive to Kadena. They were escorted by Security Police, Disaster Control, and medical teams. Loading into the C-141 took an hour.

The C-141 flew to Dugway via Barber's Point, Hawaii. The Technical Escort team and the aircrew had masks and Atropine. The team worked in shifts to monitor the cargo by checking the pallet tie downs and the containers. There was no way to check for leaks within the containers. Since the gas was tasteless, odorless, and invisible, the method used to detect leaks indoors was to place several rabbits in cages around the area and see if they were affected. This procedure was done on the flight. The rabbits survived. The trip was uneventful.

SOURCES: Trip Report, DTC 69-14, Tech Escort Support, 27-28 Mar 69, 1Lt P.C. Spencer, 313 AD/DMW, 30 Apr 69, in History 400 MMS, Jan-Jun 1969, and Interview with Lt Col P. C. Spencer, USAF, Ret., 3 Jul 1998.

2. Clay/Killpack Letter (7 AF/CC Letter to 8 TFW/CC)

At some point after 7 June 1998, CNN provided a copy of an Air Force letter from the Seventh Air Force (7 AF) Commander to the 8th Tactical Fighter Wing (8 TFW) Commander, congratulating the latter on his wing's performance in Operation TAILWIND. The letter had a one-page attachment with excerpts from a TAILWIND after-action report. At issue is an unreadable digit in the last paragraph of the excerpts page, referring to a cluster bomb unit (CBU) weapon, possibly CBU-15 or CBU-25.

The historians found a copy of the 7th AF letter in the history of the 8 TFW, July-September 1970. It did not include the attachment. They also found correspondence forwarding the 7 AF letter to the Wing Director of Operations and the 16th Special Operations Squadron (16 SOS) because the 7 AF letter singled out one AC-130 crew for special praise.

On 30 June 1998, the historians received a copy of the TAILWIND after-action report delivered to General Abrams by Lt Van Buskirk in 1970. From the fax markings, the report seems to have come from the McCarley family. Most of the quoted items in the excerpts page match the Van Buskirk report. The use of CBU-25s is mentioned three times in the Van Buskirk account. Van Buskirk's report identified the gas munition used on 14 September 1970 as CBU-19 tear gas. Actually, the historians have determined that it was CBU-30 tear gas.

The historians were not able to find coverage of TAILWIND or the 7 AF Commander's letter in the history of 7 AF, July-December 1970. They could not find any similar congratulatory letters to any of the other 7 AF Wings participating in TAILWIND.

Attached to the copy of the 7 AF Commander's letter provided by CNN was a Defense Technical Information Center (DTIC) listing for a September 1967 Air Proving Ground Command Report of an engineering evaluation of the CBU-15/A.

The report covers test of the CBU-15/A with F-100, F-105, and F-4C aircraft from August 1964 through July 1967. The Phase I bomb operated properly, but did not provide enough area coverage to meet the operational requirement. It was also estimated that a larger Phase II bomb would not meet the operational requirement.

It was recommended that if six SUU-13/A dispensers were fitted to an F-4D, it might produce an area coverage to meet the operational requirement. The report shows that this munition was being tested on fast-moving jet aircraft. There is no indication of compatibility testing with "slow moving" A-1 Skyraider aircraft.

3. Explanation of Research in SEADAB and CACTA

The Southeast Asia Data Base (SEADAB) is in the National Archives and Records Administration (NARA). It describes fixed-wing combat air missions of the U.S. military services, from 1970 to 1975, and includes such data as mission dates, aircraft flown, weapons loads, and bomb damage assessments. In 1977 the Joint Chiefs of Staff (JCS) gave the SEADAB computer tapes and SEADAB computer coding instructions dated 1975 to NARA.

Early in 1993, an AF Reserve IMA officer assigned to the Air Force History Support Office (AFHSO) began work on decoding the SEADAB tapes in NARA. The Office of the Air Force Historian (HQ USAF/HO) provided funding to a contractor which employed some personnel who worked with SEADAB in the early 1970s. Additional funding was provided in 1996 by Special Operations Command, Pacific (SOCPAC), which needed the data for de-mining projects in SEA, in the effort to locate and detonate unexploded ordnance dropped during the conflict in SEA. A full and accurate decoding of the more than 170 data fields for all of 1970-1975 requires significant additional research.

While doing their TAILWIND research, Air Force historians requested that the Reserve officer generate a computer printout from SEADAB showing any CBU-15 munitions dropped by A1 aircraft, 1970-1972. The printout showed that the A1s dropped "CBU-15 Anti-Material" weapons more than 2,000 times. The historians knew an error occurred because the CBU15 is not an anti-materiel munition and the weight of the weapon was incorrect. They doubted that the CBU-15 nerve agent bomb could have been used secretly over 2,000 times. They

asked the USAF Reserve officer who had generated the printout to see if the coding instructions could explain how the error occurred.

The officer consulted a second set of SEADAB computer card coding instructions which he had acquired from the Pacific Air Forces (PACAF) history office. Both the PACAF coding instructions and the 1975 JCS coding instructions referred to the same SEADAB data base, but the instructions were printed at different times.

The PACAF coding instructions are in a binder titled "Old SEADAB Tables" and consist of two sets of print-outs showing the current status of the computer card coding instructions from August 1970 to November 1974. One set with data printed in a narrow, compact format identifies Code 415 in the munitions table (Table 8) as CBU-14 Anti-Material, 250 lbs. from 1970 to 1974. The other set, with a spread out full text format, shows Code 415 in Table 8 as CBU-14 Anti-Material, 250 lbs. from August 1970 to September 1972. The 30 October 1972 edition shows Code 415 as CBU-15, but still describes it as Anti-Material, 250 lbs. This change continues through 1974.

The bottom line was that in 1970, there was no code for CBU-15. Code 415 meant CBU-14 in the card coding instructions for 1970. When the tape was run for 1970 using the 1970 card coding instructions, it showed CBU-14, 24, and 25 as anti-material and antipersonnel bomblets and CBU-30 tear gas.

As a double check to the SEADAB data base, the historians studied a second computerized data base in NARA, the Combat Air Activities (CACTA) file. CACTA contains data from combat air missions in Southeast Asia, October 1965 December 1970. It was the official record for 1970 while SEADAB was still being tested. SEADAB became the official record for operational aircraft sorties on 1 January 1971.

NARA provided the historians with a CACTA computer data tape which contained information on all missions flown in September 1970. The historians sent the tape to the contractors who had been working on SEADAB for the de-mining project. The contractors worked over the 4th of July weekend 1998 to extract data from the CACTA tape. They succeeded in producing a print-out of missions flown during the time of TAILWIND, 11-14 September 1970.

The CACTA data on all missions flown during the TAILWIND Operation showed no CBU-15 sarin gas munitions expended. No nerve agent weapons of any type showed up in the CACTA data.

The SEADAB data had shown 4 sorties carrying CBU-30 on 13 September 1970 and 4 sorties carrying CBU-30 on 14 September. Although the CACTA computer print-out was incomplete, it did show a "Hobo" mission, number 623, carrying CBU-30 to target coordinates YC44500380 on 14 September. One of the sorties shown in SEADAB for 14 September and expending CBU-30 also had the call sign "Hobo," mission number 623, and target coordinates YC44500380. CACTA confirmed data in SEADAB that CBU-30 was expended on 14 September by an aircraft with the call sign "Hobo." "Hobo" was the call sign of the 1st Special Operations Squadron of the 56th Special Operations Wing, which flew the A-1 Skyraider missions on 14 September for Operation TAILWIND.

See Appendices G and I.